

REMARKS

Reconsideration of the application is requested.

Claims 1-6 remain in the application. Claims 1-6 are subject to examination. Claim 5 has been amended.

In the first paragraph on page 2 of the above-identified Office Action, the Examiner objected to claim 5 because of an informality. The Examiner's suggested correction has been made in which the word "which" was added to claim 5.

The above-noted changes to the claims are provided solely for clarification or cosmetic reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

Under the heading "Claim Rejections - 35 USC § 102" on pages 2 and 3 of the above-identified Office Action, claim 1 has been rejected as being fully anticipated by U.S. Patent No. 6,108,438 to Bird et al. (hereinafter Bird) under 35 U.S.C. § 102.

Bird teaches a plurality of sensor electrodes 33 disposed in a grid fashion that are used for acquiring an image by

measuring electrical capacitances between respective electrodes and related image pixels. However, Bird is respectfully not believed to disclose further electrodes that act as reference electrodes for calculating a local average value of a corresponding measurement of the electrical capacitances in respectively delimited areas of the image. It is believed that the further electrodes mentioned by the Examiner are further ones of the sensor electrodes 33 in the array for carrying out independent measurements but are not further electrodes acting as reference electrodes as taught and recited in the instant application.

Bird teaches taking several readings of the capacitive image and averaging the results for improving accuracy (column 8, lines 6-9). However, this averaging differs from the averaging taught in the invention of the instant application in at least two ways. First, the average of Bird is obtained by making rapid successive measurements over successive field periods. In other words, the average refers to an average of measurement values over time. In contrast, the invention of the instant application teaches using an average over a geometrical area.

Second, Bird teaches using an average made over the entire fingerprint image. In contrast, the invention of the instant

application teaches averaging of only a local or geometrical portion, which can be as small as one pixel.

Bird does not teach using the average as a reference for the measurement as disclosed by the invention of the instant application.

In the case of the method according to the invention of the instant application, for measurement purposes, further electrodes are additionally used as reference electrodes which are each arranged adjacent to the actual measuring electrodes. The reference electrodes are arranged and dimensioned in such a way that, in principal, the same measurement can be carried out with them as with the actual measuring electrodes. However, by virtue of the arrangement and, if appropriate, the geometrical form, the reference electrodes are capacitively coupled to other reference electrodes, at least the directly adjacent ones to such a great extent that in the course of a measurement using these electrodes, averaging is effected around a pixel in each case over a certain area of the image. The average value acquired by the reference electrodes is used as a threshold value or limit value with which the respective measured value, which originates from the capacitive measurement using the actual measuring electrodes, is compared. With the average values,

then, what is obtained, instead of a reference that is constant over the entire image area is a locally varying comparison value which yields a contrast sufficient for detail reproduction even in the case of a locally very light or very dark image.

More specifically, and as recited in claim 1 of the instant application, Bird is not believed to teach "acquiring, with further electrodes arranged in the grid and capacitively coupled to one another, a local average value of a corresponding measurement of the electrical capacitances in respectively delimited areas of the image" because Bird neither teaches further (reference) electrodes or the concept of a local average value of delimited areas. Second, Bird is not believed to teach the step of "utilizing the average value as a reference value for the measured electrical capacitance at at least one pixel within the relevant delimited area" because Bird teaches an area wide measurement rather than a delimited area such as one pixel.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The

dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

Finally, applicant(s) appreciatively acknowledge(s) the Examiner's statement that claims 2-4 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, applicants respectfully believe that rewriting of claims 2-4 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1-6 are solicited.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner

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and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicant

REL:cgm

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